

7048480 INSPEC Abstract Number: B2001-11-2210D-025

**Title: Microstructured three-dimensional printed circuit boards: a novel fabrication technology for optical transceiver modules**

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Conference Title: Proceedings. MICRO.tec 2000. VDE World Microtechnologies Congress Part vol.1 p.107-10 vol.1

Publisher: VDE Verlag, Berlin, Germany

Publication Date: 2000 Country of Publication: Germany 2 vol.(xv+605+xix+847) pp.

ISBN: 3 8007 2579 7 Material Identity Number: XX-2000-02127

Conference Title: Proceedings of International Conference on Microtechnologies: MICRO.tec 2000

Conference Sponsor: EUREL; DECHEMA; DVMT; IEEE; IEE; SID; VDI/VDE-IT; ZVEI

Conference Date: 25-27 Sept. 2000 Conference Location: Hannover, Germany

Medium: Also available on CD-ROM in PDF format

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A); New Developments (N); Practical (P)

Abstract: A novel technology for the fabrication of three-dimensional microstructured circuit boards is presented. The process line includes master fabrication, microstructure electroplating, plastic moulding and selective metal layer deposition. The circuit boards allow the passive alignment of semiconductor dies, optical ray forming elements and optical fibers with high precision. The main application field is the fabrication of optical transceiver modules. (3 Refs)

Subfile: B

Descriptors: electroplating; modules; optical communication equipment; printed circuit manufacture; transceivers

Identifiers: microstructured 3D PCBs; three-dimensional PCBs; printed circuit boards; fabrication technology; optical transceiver modules; process line; master fabrication; microstructure electroplating; plastic moulding; selective metal layer deposition; passive alignment; semiconductor dies; optical ray forming elements; optical fibers

Class Codes: B2210D (Printed circuit manufacture); B0170J (Product packaging); B6260C (Optical communication equipment)

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